CTENOGOBIUS CLOATUS SMITH, 1960, A SYNONYM OF *CTENOGOBIUS SALDANHA* (BARNARD, 1927)

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(With 2 figures in the text and 1 plate)

Contents

Introduction

New material in the South African Museum fish collections from Port Elizabeth, False Bay, and Saldanha Bay, has shown clearly that *Ctenogobius cloatus* Smith, described from Knysna, and *Ctenogobius saldanha* (Barnard), described from Saldanha Bay, are synonymous.

The material examined is as follows:

S.A.M. 23277: 1 specimen, 79 mm., tidal swimming pool, St. James, False Bay;
S.A.M. 21488: 1 specimen, 33 mm., shallow water, Langebaan, Saldanha Bay;
S.A.M. 21489: 1 specimen, 30 mm., shallow water, Langebaan, Saldanha Bay;
S.A.M. 21490: 2 specimens, 34–37 mm., shallow water, Langebaan, Saldanha Bay;
S.A.M. 22034: 1 specimen, 40 mm., inter-tidal pool, Sea Point, Table Bay;
S.A.M. 17355: 1 specimen, 85 mm., Saldanha Bay (type of *saldanha* Barnard);
S.A.M. 23832: 6 specimens, 28–34 mm., dredged in 7 m. water, Saldanha Bay;
S.A.M. 23831: 4 specimens, 51–61 mm., inter-tidal pools, Port Elizabeth;
S.A.M. 24047: 4 specimens, 46·5–54 mm., tidal swimming pool, Port Elizabeth;
S.A.M. 24048: 3 specimens, 45·5–50 mm., inter-tidal pools, Port Elizabeth;
S.A.M. 23979: 3 specimens, 53–79 mm., inter-tidal pool, Strandfontein, False Bay;
S.A.M. 24049: 2 specimens, 67 mm., 70 mm., inter-tidal pool, Strandfontein, False Bay;
Rhodes Univ.: 1 specimen, 85 mm., lagoon, Knysna (type of *cloatus* Smith).

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Ctenogobius saldanha (Barnard)
(pl. IV, figs. 1, 2)

Gobius saldanha Barnard, 1927, p. 823.
Bathygobius saldanha (Barnard), Smith, 1949, p. 331.
Monishia saldanha (Barnard), Smith, 1960, p. 304.
Ctenogobius cloatus Smith, 1960, p. 302.

Fin counts: D. VI + I 10–11; A. I 9–10; P. 19–23; C. 15 (branched rays only). Gill-rakers: 6–7 on lower arch, total 9. Scales 34–38, transverse 11. Depth 4·9–6·8. Head 3·0–3·6 in standard length. Teeth in jaw in several series; outer row markedly enlarged, inner rows viliform, no canines. Tongue truncate or feebly bilobed. Pectoral girdle without flaps, but with a low, indented ridge on the anterior border. Pectoral fin with upper 3–4 rays free, silk-like, markedly bifurcating (fig. 1). Pelvic fraenum (i.e. membrane connecting outer rays across base) strong and well developed (fig. 1). Eye 2·9–3·7 in head. Bony interorbital narrow, less than 5 in eye diameter, eyes adjacent. Pores and papillae of head shown in fig. 2.

Ground colour whitish, with three very broad, irregular, faintly dusky cross-bars on body. Sides irregularly spotted with black. Underparts white. Nape dusky with a lighter transverse bar. Head whitish grey. A few small dark

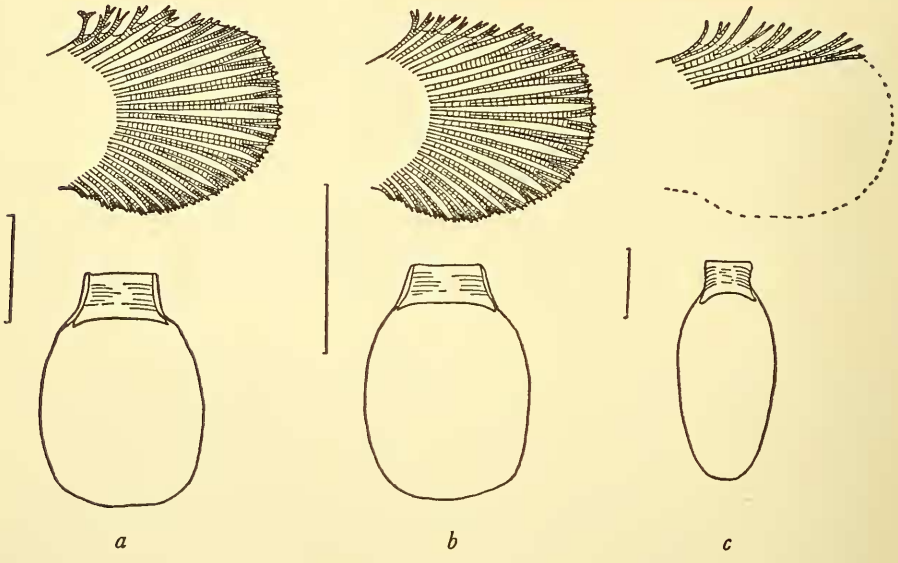

FIGURE 1.

Pectoral fin and pelvic fraenum of *Ctenogobius saldanha* (Barnard) from (*a*) Port Elizabeth; standard length 45.5 mm., (*b*) Saldanha Bay; standard length 35 mm., and (*c*) Knysna (type of *cloatus* Smith); standard length 85 mm. The fin is more contracted in (*c*) than in (*a*) and (*b*).

spots on preopercle, and usually four in a straight line along hind margin of opercle. Pectoral base dusky with several dark spots. Dorsal fins dusky with rows of black dots forming bands. A large black spot on the membrane between the fourth and fifth and the fifth and sixth dorsal spines. Pectoral, pelvic, anal and caudal fins dusky.

Head, nape, preopercle, and opercle naked; pectoral base, prepelvic, and belly with cycloid scales.

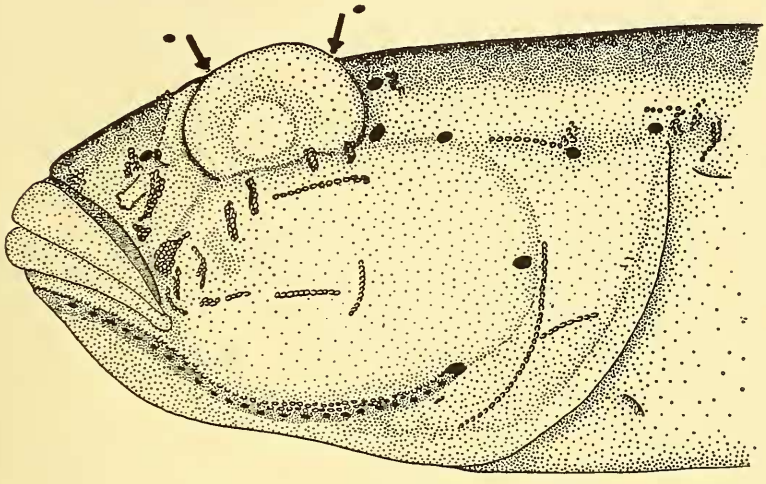

FIGURE 2.

Diagram of pores and papillae on head of *Ctenogobius saldanha* (Barnard).

DISCUSSION

A re-examination of the type of *saldanha* shows certain errors in the original description. The outer row of teeth in each jaw is clearly enlarged (not villiform throughout); there are 11 series of scales between the first anal spine and the dorsal fin base, not 10 as stated in Barnard's description; and the bases of the pectorals are scaled.

Smith's description of *cloatus* indicates the following differences from *saldanha*: strong development of the pelvic fraenum, absence of free upper pectoral rays in his specimens, enlargement of the outer row of teeth, number of transverse scale rows, shape of the tongue, and distribution.

The pelvic fraenum of *saldanha* shows no differences from that of the type of *cloatus* (fig. 1). In both cases the fraenum is well developed.

Smith's type has ragged fins with many rays broken off, and the fin membranes are damaged. Nevertheless, this specimen has the upper pectoral

rays very similar to those of *saldanha* (fig. 1) (both the type of *saldanha* and fresh specimens from the type locality). In addition, South African Museum specimens from Port Elizabeth have the upper rays similar to those of the type of *saldanha*.

The apparent differences in teeth and in number of transverse scale rows fall away after re-examination of the type of *saldanha*.

The tongue in both *cloatus* and in specimens of *saldanha* from the type locality is truncate or feebly bilobed. It is not adnate, and Barnard (1927) seems to have been correct in his suggestion that the apparently adnate tongue of the type was due to the fact that the specimen was preserved with the mouth unusually widely opened. Dehydration may also have played a part in this, and in the shrinkage of the tongue, which has obscured its shape.

Böhlke & Robins (1960) have shown that the pore system of the head is important in the classification of gobies. This was found to be identical in all specimens examined, including Smith's type specimen of *Ctenogobius cloatus* (fig. 2).

As has been found in another intertidal group of fishes, the Clinidae, and in gobies such as *Psammogobius knysnaensis* Smith and *Coryphopterus nudiceps* (C. & V.), distribution around the Cape from at least as far west as Saldanha Bay to Algoa Bay or farther occurs commonly.

We can find no difference between east and west coast specimens, and conclude that *cloatus* and *saldanha* are synonymous.

The well-developed fraenum, presence of prepelvic scales, naked head and nape, scale and fin counts, narrow bony interorbital, enlarged outer teeth, tongue shape, and restricted gill openings, place this species within the genus *Ctenogobius* Gill, 1858, as defined by Koumans (1953).

Acknowledgements

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Summary

It is shown that *Ctenogobius cloatus* Smith is synonymous with *Ctenogobius saldanha* (Barnard) (Pisces: Gobiidae). *Ctenogobius saldanha* is redescribed.

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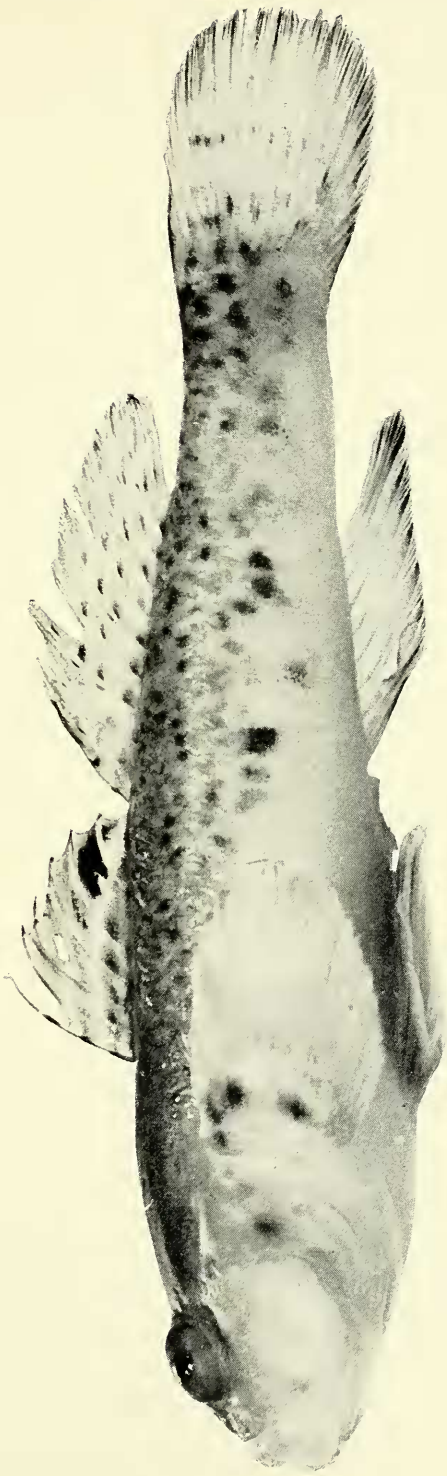

Clevogobius saldanha (Barnard).